

Notice of Allowability

Application No.

10/765,196

Examiner

George L. Walton

Applicant(s)

MELE, ALBERT

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the interview summary and the examiner's amendment.
2. ☒ The allowed claim(s) is/are 1-42.
3. ☒ The drawings filed on 28 January 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 11/4/04.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Thomas L. Adams on November 3, 2004.

The application has been amended as follows:

IN THE CLAIM(S)

1. (currently amended) A safety shutoff apparatus for closing a valve disposed between a fluid supply and a utilization device, comprising:

a pressure operable device coupled to said valve for acting upon said valve to affect at least one of an open and closed position thereof;

a pressure line having a distal port and a proximal end, the proximal end of said pressure line being coupled to said pressure operable device for applying fluid pressure thereto in order to operate said pressure operable device to affect the at least one of the open and closed positions; and

a soluble plug at the distal port of said pressure line for sealing said pressure line in order to maintain if the at least one of said open and closed positions, wherein when the pressure through said pressure line at said pressure operable device is altered due to water discharge occurring at the utilization device that causes a dissolution of the soluble plug from sealing engagement in said pressure line.

2. (original) A safety shutoff apparatus according to claim 1 wherein said pressure operable device is operable to keep said valve open in response to pressure in said pressure line exceeding 5 psi.

3. (original) A safety shutoff apparatus according to claim 1 wherein said pressure line is longer than 30 cm.

4. (original) A safety shutoff apparatus according to claim 1 wherein said pressure line has a first port and a second port communicating with said pressure operable device, said soluble plug including a first and a second soluble seal mounted at said first and said second port, respectively.

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5. (original) A safety shutoff apparatus according to claim 1 wherein said pressure line has a first branch and a second branch communicating with said pressure operable device, said soluble plug including a first and a second soluble seal mounted distally in said first and said second branch, respectively.

6. (original) A safety shutoff apparatus according to claim 1 wherein said pressure line has a service branch terminating with a fitting adapted to connect to a source for pressurizing said pressure line.

7. (original) A safety shutoff apparatus according to claim 1 comprising:
a pump for pressurizing said pressure line.

8. (original) A safety shutoff apparatus according to claim 1 comprising:
a sleeve attached to said pressure line, said soluble plug being mounted in said sleeve.

9. (original) A safety shutoff apparatus according to claim 8 wherein said sleeve has an internal seal coating for sealing said soluble plug to said sleeve.

10. (original) A safety shutoff apparatus according to claim 8 wherein said sleeve has a fitting for coupling said sleeve to said pressure line.

11. (original) A safety shutoff apparatus according to claim 8 wherein said sleeve has a fitting for detachably coupling said sleeve to said pressure line.

12. (original) A safety shutoff apparatus according to claim 8 wherein said sleeve has an inner chamber and a larger outer chamber, said soluble plug being mounted in said larger outer chamber, said safety shutoff apparatus comprising:
a stopper slidably mounted in said inner chamber between said soluble plug and said pressure line.

13. (original) A safety shutoff apparatus according to claim 8 wherein said sleeve has an inwardly diverging throat containing said soluble plug.

14. (original) A safety shutoff apparatus according to claim 8 wherein said sleeve has a plurality of side orifices.

15. (original) A safety shutoff apparatus according to claim 1 comprising:
a biasing device for urging said valve to close.

16. (original) A safety shutoff apparatus according to claim 1 comprising:
a catch for normally preventing closure of said valve, said pressure operable device being operable to release said catch and allow closure of said valve.

17. (original) A safety shutoff apparatus according to claim 16 comprising:

a spring for urging said valve to close.

18. (original) A safety shutoff apparatus according to claim 16 wherein said valve has a rotatable operating handle with an opening, said catch normally engaging said opening in said handle, said catch being retractable from said opening to release said handle.

19. (original) A safety shutoff apparatus according to claim 16 wherein said valve has a rotatable operating handle, said catch comprising:
a pin mounted to retract relative to said handle in an axial direction.

20. (original) A safety shutoff apparatus according to claim 16 wherein said valve has a rotatable operating handle, said catch comprising:
a cam rotatably driven by said pressure operable device to retract relative to said handle.

21. (original) A safety shutoff apparatus according to claim 16 wherein said valve has a rotatable operating handle, said catch comprising:
a lever rotatably driven by said pressure operable device to retract relative to said handle.

22. (original) A safety shutoff apparatus according to claim 16 wherein said pressure operable device comprises a pneumatic cylinder.

23. (original) A safety shutoff apparatus according to claim 1 wherein said valve has an operating handle, said safety shutoff apparatus comprising:
a spring coupled to said handle for urging said valve to close.

24. (original) A safety shutoff apparatus according to claim 23 wherein said spring is an extension spring coupled to said handle to swing it.

25. (original) A safety shutoff apparatus according to claim 24 wherein said valve has a pipe, said safety shutoff apparatus comprising:
a standoff adapted to clamp to said pipe, said spring being stretched between said standoff and said handle.

26. (original) A safety shutoff apparatus according to claim 1 comprising:
a torsion spring mounted to apply a torque to said valve in a manner that tends to close said valve.

27. (original) A safety shutoff apparatus according to claim 26 wherein said valve has a movable member, said safety shutoff apparatus comprising:
a stator mounted at said valve with restricted ability to rotate, said stator having an inner and an outer flange; and
a rotor mounted about said stator adjacent said inner flange, said torsion spring being mounted on said stator and being coupled between said outer flange and said rotor in order to drive them toward a neutral relative angular orientation, said rotor being coupled to said movable

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member of said valve, said spring being mounted in a position tending to rotate said movable member of said valve in a predetermined direction.

28. (original) A safety shutoff apparatus according to claim 27 wherein said spring can be angularly adjusted to change the angular orientation between said outer flange and said rotor when in the neutral relative angular orientation.

29. (original) A safety shutoff apparatus according to claim 28 wherein said stator has an abutment arm to engaging stationary structure on said valve, said rotor having a driving arm for engaging the movable member of said valve.

30. (original) A safety shutoff apparatus according to claim 1 wherein said pressure operable device comprises a pneumatic cylinder.

31. (original) A safety shutoff apparatus according to claim 1 wherein said pressure operable device comprises a bellows.

32. (original) A safety shutoff apparatus according to claim 1 wherein said pressure operable device comprises a bladder.

33. (original) A safety shutoff apparatus according to claim 1 wherein said pressure operable device comprises a vessel with an inlet and a diaphragm, said vessel being pressurizable through said inlet to distend said diaphragm.

34. (original) A safety shutoff apparatus according to claim 1 comprising:
an accumulator for stabilizing pressure in said pressure line.

35. (original) A safety shutoff apparatus according to claim 34 wherein said accumulator comprises:
a chamber having an inflatable member.

36. (original) A safety shutoff apparatus according to claim 34 wherein said accumulator comprises:
a chamber having a spring biased piston.

37. (currently amended) A method for closing a valve disposed between a fluid supply and a utilization device, said valve cooperatively associated with a pressure operable device that is coupled to a pressure line having a distal port sealed with a soluble plug, comprising the steps of:

pressurizing said pressure line sufficiently to cause the pressure operable device to maintain the valve in an open condition;

contemporaneously placing the soluble plug next to an object that is subject to leaking to allow in response to leaking from said object dissolution of said soluble plug and release of pressure in said pressure line; and

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closing the valve when mechanical movement is produced by the pressure operable device in response to pressure being released from said pressure line.

38. (original) A method according to claim 37 comprising the step of:
routing said pressure line with at least two branches serving different objects subject to leaking, each of the branches being sealed with a soluble plug.

39. (original) A method according to claim 37 wherein the pressure line has at least two soluble plugs, the method comprising the step of:
routing said pressure line with the at least two soluble plugs serving different objects that are subject to leaking.

40. (original) A method according to claim 37 wherein the step of pressurizing the pressure line is performed by creating a pressure of no more than 5 psi.

41. (original) A method according to claim 37 comprising the step of:
periodically repressurizing the pressure line.

42. (original) A method according to claim 37 wherein the valve is biased to close, the method comprising the step of:
placing a catch in a position to prevent closing of the valve; and
releasing the catch using the pressure operable device.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George L. Walton whose telephone number is 703-308-2596. The examiner can normally be reached on M-F, 8:00-4:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on 703-308-1272. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



George L. Walton
Primary Examiner
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GLW